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MEGATHYMUS YUCCAE IN KENTUCKY (HESPERIIDAE, MEGATHYMINAE)

Additional key words: *Yucca* Giant-Skipper, *Yucca filamentosa*.

On 11 April 2001 the third author discovered a colony of *Yucca* Giant-Skippers, *Megathymus yuccae* (Boisduval & Leconte) (Megathymidae), in southeastern Calloway County, Kentucky, approximately 22 km (13.5 mi) east-south-east of Murray in the western part of the state. At least 8–10 individuals were observed, two or three of which were females, obvious because of their larger overall size and thicker abdomens. Males were observed flying about in pursuit of one another—apparently defending territories—and perching on the ground and vegetation. One male specimen was collected and photos were taken of several individuals, including a mating pair. A second mated pair also was observed, and on one occasion three males were observed simultaneously in pursuit of a single female.

The *Yucca* Giant-Skippers were found amidst a



FIG. 1. *Yucca* Giant-Skipper, *Megathymus yuccae*, Calloway Co., Kentucky, 13 April 2001; photo by Lorán D. Gibson.



FIG. 2. Underside of the *Yucca* Giant-Skipper, *Megathymus yuccae*, Calloway Co., Kentucky, 13 April 2001; photo by Lorán D. Gibson.



FIG. 3. Yucca Giant-Skipper food plant, *Yucca filamentosa* L., with larval "chimney," Calloway Co., Kentucky, 18 April 2002, photo by W. R. Black, Jr.

colony of Yucca, *Yucca filamentosa* L. (Liliaceae), consisting of approximately two or three dozen plants scattered along the shoulders of a gravel road. The site extended for approximately 245 m (200 yards) and was situated on a ridgetop of dry, gravelly soils. The surrounding vegetation consisted primarily of relatively young, second-growth upland oak-hickory forest. There were also numerous Loblolly pines, *Pinus taeda* L. (Pinaceae), a species not native to Kentucky, scattered throughout the forest and roadside. The roadside shoulders were vegetated with young trees, shrubs and weeds, providing a more open habitat for the yucca plants to grow and spread. The senior author was notified of the find, and he was able to relate the fact that characteristic larval "frass chimneys" should be present within nearby yucca plants if the skippers had been established at the site prior to the observation. Subsequently, three such structures were located in yucca plants along the roadside. Later that day, the senior author confirmed the identification and pre-

pared the collected specimen, which serves as a voucher for not only a new Kentucky record, but also a north-central extension of the known range of *M. yuccae*.

On 13 April 2002 the second author and Loran D. Gibson visited the site. Gibson reported "20 to 25 of the skippers flying about and easy to approach." More photos of the food plants and skippers were taken (Figs. 1, 2). The third author returned to the site on 26 April 2002 and found three individuals still present. One was a female that appeared to be searching for host plants on which to lay eggs. The other two were males, one being very worn.

On 18 April 2002, the second author visited the site again, and observed a fresh female ovipositing on a yucca plant, and eggs on the plant. A male and another individual, quite worn, were observed at this site. He drove along several roads in the area and found four additional sites with evidence of *M. yuccae*'s presence. At one, there was an unopened larval "chimney" associated with a Yucca plant (Fig. 3). At the second, he

found one live pupa in a broken-off "chimney," and one female ovipositing on different plants. At a third site he observed three unopened "chimneys," plus 10 eggs on yucca leaves. At the final site he found two "chimneys." All sites are within a few miles of each other in Calloway County, Kentucky.

The Yucca Giant-Skipper has not been published as occurring in Illinois (U.S.G.S. state lists) or Missouri (J. R. Heitzman pers. com.). Leroy C. Koehn (pers. com.) reported that he has found colonies in western Tennessee, but these data have not been formally published.

These colonies represent the northern-most known occurrence of a breeding colony of *M. yuccae* along the Mississippi River. On the East Coast it extends northward to southeastern Virginia at about the same latitude as the Calloway County site; and farther west it is found in Kansas and westward also at about the same latitude (Opler & Malikul 1998).

Interestingly, Yucca has been so widely introduced and adventive populations have spread so readily beyond its historic range that it is not completely clear how far north natural populations of this plant occur (J. N. N. Campbell pers. com.). According to Medley (1993), the species is not native to Kentucky. However, with populations of the plant seemingly well estab-

lished, it appears that the Yucca Giant-Skipper may now be established along with its host plant. These small colonies are vulnerable to habitat destruction, over collecting and other dangers. We hope to investigate protection of these sites and to seek other colonies in the area.

We thank Loran D. Gibson for the use of his photographs of the live Yucca Giant Skipper.

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FEMALE NORTH AMERICAN *EVERES* HÜBNER, [1819] AND THE IDENTITY OF *LYCAENA* *SISSONA* W. G. WRIGHT, 1905 (LYCAENIDAE)

Additional key words: genitalia, identification, subspecies.

Two similar species, *Everes amyntula* (Boisduval, 1852) and *Everes comyntas* (Godart, [1824]) (Lycaenidae: Polyommatainae), are broadly sympatric and may fly together in parts of the western United States and adjacent Canada (Scott 1986, Stanford & Opler 1993, Layberry et al. 1998, Guppy & Shepard 2001). The former is widespread while *E. comyntas* apparently occurs in scattered populations west of the Rocky Mountains, but, at times, the latter may be the only or most abundant species at some locales. Although a number of wing traits have been implicated as useful in separating these species (e.g., Klots 1951, Downey 1975, Fisher 1981, Pyle 1981, Opler 1999), individual, seasonal, and geographical variation confound their identity. This variation has not been thoroughly investigated and it may be that superficial differences will have to be elaborated at the local level. Males have

demonstratively different genitalia, most readily seen in the shape of the uncus (Bethune-Baker 1913, Johnson 1972, Dornfeld 1980, Fisher 1981, Scott 1986, Guppy & Shepard 2001). Females generally have not been distinguished except by association with males and superficial characters of apparently limited value. One character that has not been mentioned, but may be useful in separating females of the two species, is in the submargin of the dorsal hindwing. All female *E. amyntula* examined from Arizona, California, Colorado, Nevada, Oregon, and Utah (n = 265) had a row of usually several pale submarginal macules. *Everes comyntas* from Arizona and California (n = 54), however, lacks these macules except on apparent short-day phenotypes having considerable dorsal blue (e.g., Field 1938, Shapiro 1974a). It thus seems that individuals without pale submarginal macules on the dorsal